

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 03-185716

(43)Date of publication of application : 13.08.1991

(51)Int.Cl.

H01L 21/205

(21)Application number : 01-324606

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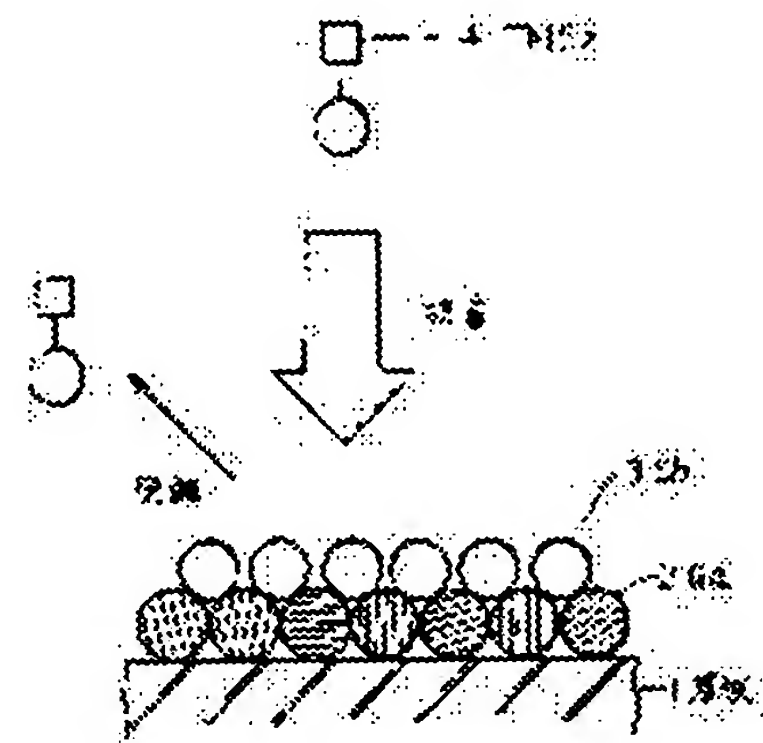
(22)Date of filing : 14.12.1989

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(54) METHOD OF GROWING COMPOUND SEMICONDUCTOR CRYSTAL

(57)Abstract:

PURPOSE: To enable epitaxial growth of an atomic layer of a compound semiconductor containing antimony by alternately supplying trimethyl antimony (TMSb) and a raw material containing elements except antimony for constituting the compound semiconductor crystal into a growth chamber. CONSTITUTION: When a compound semiconductor crystal containing Sb is to be grown, trimethyl antimony (TMSb) 4 which is an organic metal compound high in vapor pressure and has selective adsorption (or selective desorption) property is used as a raw material of Sb. That is, by alternately supplying TMSb 4 and a raw material containing elements except antimony for constituting the compound semiconductor crystal into a growth chamber, the compound semiconductor crystal containing antimony is grown on a substrate 1. In addition, pressure in a tube at the time of supplying TMSb 4 is 10Torr or higher as well as substrate heating temperature is 450 to 550° C. Thus epitaxial growth of an atomic layer of a compound semiconductor containing Sb is possible.



LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]